

ABSTRACT

A method and apparatus for distinguishing metal objects employing multiple frequency interrogation. In one aspect, the method includes interrogating a target with at least two frequencies, obtaining respective response signals for the two frequencies, resolving the response signals into at least respective resistive component portions, comparing the magnitudes of at least two of the resistive component portions, selecting one response signal from among the response signals based on the comparison, and characterizing the target with the selected response signal. In other aspects, the method includes obtaining response data by interrogating the target at at least two frequencies, normalizing the response data and comparing the normalized response data. A signal is provided indicating the extent of any disagreement in the normalized response data.

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